

3. Autoliv and Caterpillar began working in mid-2011 to transition Caterpillar vehicles to radars which will meet the emission standards that go into effect on January 1, 2014. Despite substantial efforts, unforeseen technical challenges have recently surfaced during final product validation stages inhibiting the timely transition to a compliant radar product. For example, during final validation testing, it was discovered that the "field of view" of the new radars were not performing at acceptable detection levels once installed in the Caterpillar vehicles which may lead to non-detection of objects or persons in close proximity to the large Caterpillar vehicles.

4. Autoliv and Caterpillar have been working closely to investigate and remedy this condition. At this time, comprehensive vehicle-level testing is underway by Caterpillar and Autoliv to further evaluate the technical issues. Once Autoliv and Caterpillar identify the modifications necessary, Caterpillar will conduct validation testing in order to confirm radar system performance for the vehicles. Once the validation process is successfully completed, the changes will be implemented in serial production of Caterpillar vehicles.

5. Caterpillar projects that, if the waiver is granted, C4 radars will be used on approximately 900 Caterpillar vehicles in 2014. A waiver to allow Caterpillar to import the C4 radar is sought because Caterpillar assembles the C4 radar into a larger piece of equipment in Canada, and then ships that larger assembly to the U.S. for installation in Caterpillar vehicles.

Signed under the pains and penalties of perjury this 30th day of October, 2013.

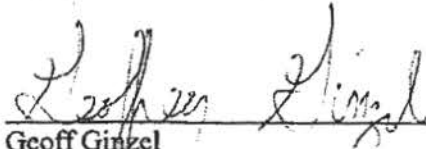

Geoff Ginzel

EXHIBIT TWO



Federal Communications Commission
Washington, D.C. 20554

December 30, 2013

DA 13-2479

Ms. Marianne Roach Casserly
Alston & Bird, LLP
950 F St., NW
Washington, DC 20004

RE: ET Docket No. 13-280

Dear Ms.Casserly:

The Office of Engineering and Technology (OET) hereby grants the Petition for Waiver filed by Autoliv ASP, Inc. and Caterpillar, Inc. seeking temporary waiver of the emissions limits in Section 15.515(c) of the Commission's rules. This waiver will permit Autoliv to continue to manufacture and market to Caterpillar until December 31, 2014 and for Caterpillar to import until that same date Autoliv's C4 vehicular radars. These radars comply with the existing emissions limits of Section 15.515(c), but will not comply with the limits due to phase in on January 1, 2014 under that same rule.

Autoliv makes a variety of radar detection devices for vehicles, including other radar models (Dually Compliant Vehicular Radars) that are compliant with the emissions limits that will go into effect on January 1, 2014. You state that in anticipation of the impending emissions limit change, Autoliv has successfully transitioned more than 99% of its radar sales to the Dually Compliant units and has been working diligently since mid-2011 to adapt these devices for Caterpillar's use. However, radar systems for large industrial vehicles must be specifically designed for each vehicle type with its specific characteristics taken into consideration. In the case of Caterpillar's Large Mining Trucks and Large Wheel Leaders, you discovered during the end of your validation testing that additional modifications to the radar networks using the Dually Compliant radars will be required to retain appropriate levels of detection and field of view for the safe operation of these vehicles. You anticipate that redesign and validation of radar systems for the subject Caterpillar vehicles using Dually Compliant radars will take through 2014 to complete.

You explain that the Caterpillar vehicles cannot be operated safely without effective radar systems, due to their size and shape and their operating environment (often in mines and in narrow passageways). Accordingly, Caterpillar needs the requested temporary waiver in order to continue to equip the subject vehicles with the C4 radar systems through 2014, after which systems using compliant radars will be available from Autoliv.

We are authorized to grant a waiver under Section 1.3 of the Commission's Rules if the petitioner demonstrates good cause for such action. (47 C.F.R. § 1.3. *See also ICO Global*

Communications (Holdings) Limited v. FCC, 428 F.3d 264 (D.C. Cir. 2005); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).) Good cause, in turn, may be found and a waiver granted “where particular facts would make strict compliance inconsistent with the public interest.” (*Northeast Cellular*, *supra* at 1166; *see also ICO Global Communications*, *supra* at 269 (quoting *Northeast Cellular*); *WAIT Radio*, *supra* at 1157-59.) To make this public interest determination, the waiver cannot undermine the purposes of the rule, and there must be a stronger public interest benefit in granting the waiver than in applying the rule. (*See, e.g., WAIT Radio*, *supra* at 1157 (stating that even though the overall objectives of a general rule have been adjudged to be in the public interest, it is possible that application of the rule to a specific case may not serve the public interest if an applicant's proposal does not undermine the public interest policy served by the rule); *Northeast Cellular*, *supra* at 1166 (stating that in granting a waiver, an agency must explain why deviation from the general rule better serves the public interest than would strict adherence to the rule).)

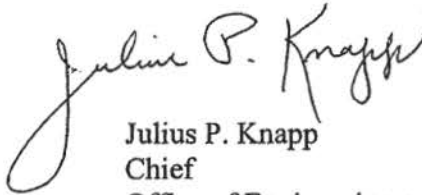
Based on the information provided in your request, grant of a temporary waiver is appropriate. The purpose of the rule at issue is not likely to be undermined by grant of the waiver. The emission limits in the subject rule have evolved over time, with one standard applicable to equipment manufactured after January 1, 2005, another standard applicable to equipment manufactured after January 1, 2010, and yet another standard applicable to equipment manufactured after January 1, 2014. The Commission’s principal concern in adopting this rule and set of phased-in limits was the cumulative interference to passive sensing systems operating in the 23.6 to 24.0 GHz band on low earth orbiting satellites, including meteorological satellites, caused by “potentially tens of thousands of transportation vehicles employing these radar devices. (*In re Revision of Part 15 of Commission's Rules Regarding Ultra-Wideband Transmission Systems*, First Report & Order, ET Docket No. 98-153, 17 FCC Rcd. 7435, 7502 (2002).) Multiple factors, most notably the low density of vehicles, combine to clearly indicate that the impact of this waiver on the potentially affected satellites is likely to be negligible. This waiver will apply only for systems to equip the 900 vehicles anticipated to be manufactured during this one-year period, many of which, we note, will be sold to operators in other countries. We further note that these vehicles sometimes operate in mines, which would significantly attenuate the emissions from their radars.

Grant of this waiver will serve the public interest by permitting the continuation of mining and earth moving activities without a diminution in the safety of operation of these large, expensive, valuable, and potentially dangerous vehicles.

Finally, we note that Autoliv was diligent in its attempts to meet the timetable for the evolution of its radars, completing its modifications for 99% of its supply in a timely fashion, and was on track to completing systems for the subject vehicles on time when it discovered a problem understandably difficult to anticipate.

Accordingly, pursuant to the delegated authority in Sections 0.31, 0.241, and 1.3 of the Commission's Rules, 47 C.F.R. §§ 0.31, 0.241, 1.3, we waive the emissions limits of Section 15.515(c) of our Rules to allow Autoliv ASP, Inc. to continue to manufacture and market to Caterpillar, Inc. until December 31, 2014 and for Caterpillar to import until that same date Autoliv's C4 vehicular radars only for systems to equip the 900 vehicles anticipated to be manufactured during this one-year period which comply with the January 1, 2010 emissions limits of Section 15.515(c).

Sincerely,

A handwritten signature in dark ink, appearing to read "Julius P. Knapp". The signature is fluid and cursive, with a large initial "J" and "K".

Julius P. Knapp
Chief
Office of Engineering and Technology